

Claims

What is claimed is:

1. An ink-jet head control circuit comprising:

a data storage unit, which respectively stores a first data block and a second data block following the first data block, for liquid drop discharge; and

a data conversion unit, which calculates a state transition data block based on the stored first and second data blocks;

wherein:

if the first data block is the same as the second data block, the data conversion unit outputs a state transition data block having a first value; and

if the first data block is different from the second data block, the data conversion unit outputs a state transition data block having a second value.

2. The ink-jet head control circuit according to Claim 1, wherein:

the ink-jet head control circuit is provided in a driving device, which outputs the state transition data block to an ink-jet head module for discharging liquid drops through a plurality of nozzles.

3. The ink-jet head control circuit according to Claim 1, wherein:

the ink-jet head control circuit is provided in a computer connected to a driving device, which outputs the state transition data block to an ink-jet head module for discharging liquid drops through a plurality of nozzles.

4. An ink-jet head module for discharging liquid drops through a plurality of nozzles, comprising:

a data storage unit, which stores a state transition data block calculated based on first and second data blocks for liquid drop discharge; and

a data conversion unit, which converts the stored state transition data block into a data block for liquid drop discharge;

wherein:

if the state transition data block has a first value, the data conversion unit determines that the first data block is the same as the second data block; and

if the state transition data block has a second value, the data conversion unit determines that the first data block is different from the second data block.

5. A data transmission method of interfacing the ink-jet head control circuit according to Claim 1 and the ink-jet head module according to Claim 4.

6. A liquid drop discharge apparatus comprising the ink-jet head control circuit according to Claim 1 and the ink-jet head module according to Claim 4.